

SEQUENCE LISTING

<110> Amasino, Richard  
Schomburg, Fritz  
Michaels, Scott  
Sung, Si-Bum

<120> Alteration of Flowering Time in Plants

<130> 960296.96871

<140> 09/513,775  
<141> 2000-02-25

<150> 60/121,572  
<151> 1999-02-25

<150> 60/123,455  
<151> 1999-03-05

<160> 10

<170> PatentIn Ver. 2.1

<210> 1  
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<212> DNA  
<213> Arabidopsis thaliana

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<222> (1)..(588)

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Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
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cga caa gtc acc ttc tcc aaa cgt cgc aac ggt ctc atc gag aaa gct 96  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Glu Lys Ala  
20 25 30

cgt cag ctt tct gtt ctc tgt gac gca tcc gtc gct ctt ctc gtc gtc 144  
Arg Gln Leu Ser Val Leu Cys Asp Ala Ser Val Ala Leu Leu Val Val  
35 40 45

tcc gcc tcc ggc aag ctc tac agc ttc tcc ggc gat aac ctg gtc 192  
Ser Ala Ser Gly Leu Tyr Ser Phe Ser Ser Gly Asp Asn Leu Val

50	55	60	
aag atc ctt gat cga tat ggg aaa cag cat gct gat gat ctt aaa gcc Lys Ile Leu Asp Arg Tyr Gly Lys Gln His Ala Asp Asp Leu Lys Ala	65	70	240
ttg gat cat cag tca aaa gct ctg aac tat ggt tca cac tat gag cta Leu Asp His Gln Ser Lys Ala Leu Asn Tyr Gly Ser His Tyr Glu Leu	85	90	288
ctt gaa ctt gtg gat agc aag ctt gtg gga tca aat gtc aaa aat gtg Leu Glu Leu Val Asp Ser Lys Leu Val Gly Ser Asn Val Lys Asn Val	100	105	336
agt atc gat gct ctt gtt caa ctg gag gaa cac ctt gag act gcc ctc Ser Ile Asp Ala Leu Val Gln Leu Glu Glu His Leu Glu Thr Ala Leu	115	120	384
tcc gtg act aga gcc aag aag acc gaa ctc atg ttg aag ctt gtt gag Ser Val Thr Arg Ala Lys Lys Thr Glu Leu Met Leu Lys Leu Val Glu	130	135	432
aat ctt aaa gaa aag gag aaa atg ctg aaa gaa gag aac cag gtt ttg Asn Leu Lys Glu Lys Glu Lys Met Leu Lys Glu Glu Asn Gln Val Leu	145	150	480
gct agc cag atg gag aat aat cat cat gtg gga gca gaa gct gag atg Ala Ser Gln Met Glu Asn Asn His His Val Gly Ala Glu Ala Glu Met	165	170	528
gag atg tca cct gct gga caa atc tcc gac aat ctt ccg gtg act ctc Glu Met Ser Pro Ala Gly Gln Ile Ser Asp Asn Leu Pro Val Thr Leu	180	185	576
cca cta ctt aat tagccacatt aaatcgccgg ttgaaatcaa aatccaaaac Pro Leu Leu Asn	195		628
atataataatt atgaagaaaa aaaaaataag atatgttaatt attccgctga taagggcgag			688
cgttgtata tcttaataact ctctctttgg ccaagagact ttgtgtgtga tacttaagta			748
gacggaaacta agtcaataact atccgtttta agacaaaaaaa aaaaaaaaaa			797

<210> 2  
<211> 196  
<212> PRT

<213> Arabidopsis thaliana

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Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
1 5 10 15

Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Glu Lys Ala  
20 25 30

Arg Gln Leu Ser Val Leu Cys Asp Ala Ser Val Ala Leu Leu Val Val  
35 40 45

Ser Ala Ser Gly Lys Leu Tyr Ser Phe Ser Ser Gly Asp Asn Leu Val  
50 55 60

Lys Ile Leu Asp Arg Tyr Gly Lys Gln His Ala Asp Asp Leu Lys Ala  
65 70 75 80

Leu Asp His Gln Ser Lys Ala Leu Asn Tyr Gly Ser His Tyr Glu Leu  
85 90 95

Leu Glu Leu Val Asp Ser Lys Leu Val Gly Ser Asn Val Lys Asn Val  
100 105 110

Ser Ile Asp Ala Leu Val Gln Leu Glu Glu His Leu Glu Thr Ala Leu  
115 120 125

Ser Val Thr Arg Ala Lys Lys Thr Glu Leu Met Leu Lys Leu Val Glu  
130 135 140

Asn Leu Lys Glu Lys Glu Lys Met Leu Lys Glu Glu Asn Gln Val Leu  
145 150 155 160

Ala Ser Gln Met Glu Asn Asn His His Val Gly Ala Glu Ala Glu Met  
165 170 175

Glu Met Ser Pro Ala Gly Gln Ile Ser Asp Asn Leu Pro Val Thr Leu  
180 185 190

Pro Leu Leu Asn  
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<210> 3

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<212> DNA

<213> Arabidopsis thaliana

<220>

<221> CDS

<222> (1)..(519)

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Met Gly Arg Arg Lys Ile Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
1 5 10 15

cga caa gtc act ttc tcc aaa cga cgc aat ggt ctc atc gac aaa gct 96  
Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Asp Lys Ala  
20 25 30

cga caa ctt tcg att ctc tgt gaa tcc tcc gtc gct gtt gtc gtc gta 144  
Arg Gln Leu Ser Ile Leu Cys Glu Ser Ser Val Ala Val Val Val Val  
35 40 45

tct gcc tcc gga aaa ctc tat gac tct tcc ggt gac gac att tcc 192  
Ser Ala Ser Gly Lys Leu Tyr Asp Ser Ser Gly Asp Asp Ile Ser  
50 55 60

aag atc att gat cgt tat gaa ata caa cat gct gat gaa ctt aga gcc 240  
Lys Ile Ile Asp Arg Tyr Glu Ile Gln His Ala Asp Glu Leu Arg Ala  
65 70 75 80

tta gat ctt gaa gaa aaa att cag aat tat ctt cca cac aag gag tta 288  
Leu Asp Leu Glu Glu Lys Ile Gln Asn Tyr Leu Pro His Lys Glu Leu  
85 90 95

cta gaa aca gtc caa agc aag ctt gaa gaa cca aat gtc gat aat gta 336  
Leu Glu Thr Val Gln Ser Lys Leu Glu Glu Pro Asn Val Asp Asn Val  
100 105 110

agt gta gat tct cta att tct ctg gag gaa caa ctt gag act gct ctg 384  
Ser Val Asp Ser Leu Ile Ser Leu Glu Glu Gln Leu Glu Thr Ala Leu  
115 120 125

tcc gta agt aga gct agg aag gca gaa ctg atg atg gag tat atc gag 432  
Ser Val Ser Arg Ala Arg Lys Ala Glu Leu Met Met Glu Tyr Ile Glu  
130 135 140

tcc ctt aaa gaa aag gag aaa ttg ctg aga gaa gag aac cag gtt ctg 480  
Ser Leu Lys Glu Lys Glu Lys Leu Leu Arg Glu Glu Asn Gln Val Leu  
145 150 155 160

gct agc cag ctg tca gag aag aaa ggt atg tct cac cga tgaaagatac 529  
Ala Ser Gln Leu Ser Glu Lys Lys Gly Met Ser His Arg

165

170

tcaaaaacccg atggaaaga atacgttgct ggcaacagat gatgagagag gaatgttcc 589  
gggaagtagc tccggcaaca aaataccgga gactctcccg ctgctcaatt agccaccatc 649  
atcaacggct gagtttcac cttaaactca aagcctgatt cataattaag agaataaatt 709  
tgtatattat aaaaagctgt gtaatctcaa acctttatc ttccctctagt gtgaaattta 769  
aggtaaaaaa gaaaacgaga aagtatggat cagtgttga ctccttcgg agacaagatc 829  
agagtttgc tgtttgc tgaatgtacg gattggattt ttaaagttgt gcttttttc 889  
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<210> 4

<211> 173

<212> PRT

<213> *Arabidopsis thaliana*

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Met Gly Arg Arg Lys Ile Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
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Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Asp Lys Ala  
20 25 30

Arg Gln Leu Ser Ile Leu Cys Glu Ser Ser Val Ala Val Val Val  
35 40 45

Ser Ala Ser Gly Lys Leu Tyr Asp Ser Ser Ser Gly Asp Asp Ile Ser  
50 55 60

Lys Ile Ile Asp Arg Tyr Glu Ile Gln His Ala Asp Glu Leu Arg Ala  
65 70 75 80

Leu Asp Leu Glu Glu Lys Ile Gln Asn Tyr Leu Pro His Lys Glu Leu  
85 90 95

Leu Glu Thr Val Gln Ser Lys Leu Glu Glu Pro Asn Val Asp Asn Val  
100 105 110

Ser Val Asp Ser Leu Ile Ser Leu Glu Glu Gln Leu Glu Thr Ala Leu  
115 120 125

Ser Val Ser Arg Ala Arg Lys Ala Glu Leu Met Met Glu Tyr Ile Glu

130

135

140

Ser Leu Lys Glu Lys Glu Lys Leu Leu Arg Glu Glu Asn Gln Val Leu  
 145                    150                    155                    160

Ala Ser Gln Leu Ser Glu Lys Lys Gly Met Ser His Arg  
 165                    170

&lt;210&gt; 5

&lt;211&gt; 769

&lt;212&gt; DNA

&lt;213&gt; Arabidopsis thaliana

&lt;220&gt;

&lt;221&gt; CDS

&lt;222&gt; (1)..(534)

&lt;400&gt; 5

atg ggt aga aaa aaa gtc gag atc aag cga atc gag aac aaa agt agt    48  
 Met Gly Arg Lys Lys Val Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
 1                    5                    10                    15

cga caa gtc act ttc tcc aaa cga cgc aat ggt ctc atc gag aaa gct    96  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Glu Lys Ala  
 20                    25                    30

cga caa ctt tca att ctc tgt gaa tct tcc atc gct gtt ctc gtc gtc    144  
 Arg Gln Leu Ser Ile Leu Cys Glu Ser Ser Ile Ala Val Leu Val Val  
 35                    40                    45

tcc ggc tcc gga aaa ctc tac aag tct gcc tcc ggt gac aac atg tca    192  
 Ser Gly Ser Gly Lys Leu Tyr Lys Ser Ala Ser Gly Asp Asn Met Ser  
 50                    55                    60

aag atc att gat cgt tac gaa ata cat cat gct gat gaa ctt gaa gcc    240  
 Lys Ile Ile Asp Arg Tyr Glu Ile His His Ala Asp Glu Leu Glu Ala  
 65                    70                    75                    80

tta gat ctt gca gaa aaa act cgg aat tat ctg cca ctc aaa gag tta    288  
 Leu Asp Leu Ala Glu Lys Thr Arg Asn Tyr Leu Pro Leu Lys Glu Leu  
 85                    90                    95

cta gaa ata gtc caa agc aag ctt gaa gaa tca aat gtc gat aat gca    336  
 Leu Glu Ile Val Gln Ser Lys Leu Glu Glu Ser Asn Val Asp Asn Ala  
 100                    105                    110

agt gtg gat act tta att tct ctg gag gaa cag ctc gag act gct ctg 384  
Ser Val Asp Thr Leu Ile Ser Leu Glu Glu Gln Leu Glu Thr Ala Leu  
115 120 125

tcc gta act aga gct agg aag aca gaa cta atg atg ggg gaa gtg aag 432  
Ser Val Thr Arg Ala Arg Lys Thr Glu Leu Met Met Gly Glu Val Lys  
130 135 140

tcc ctt caa aaa acg gag aac ttg ctg aga gaa gag aac cag act ttg 480  
Ser Leu Gln Lys Thr Glu Asn Leu Leu Arg Glu Glu Asn Gln Thr Leu  
145 150 155 160

gct agc cag gtg aca aaa aca tct ctt gaa gct aat tca tca gtt gat 528  
Ala Ser Gln Val Thr Lys Thr Ser Leu Glu Ala Asn Ser Ser Val Asp  
165 170 175

aca caa taaaaataga aattacactt gcgttaaaca tatatatata aaagttgaag 584  
Thr Gln

gactttgatt gatgttaggc attttttttg tgaaaccccc atatatctta aaatctatga 644

taaaaagtccct ttcaaaattc aaatttcttg ttactattta gttgaatgat cagtttaat 704

taatgaaaatt ttcccaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 764

aaaaaa 769

<210> 6

<211> 178

<212> PRT

<213> *Arabidopsis thaliana*

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Arg Gln Val Thr Phe Ser Lys Arg Arg Asn Gly Leu Ile Glu Lys Ala  
20 25 30

Arg Gln Leu Ser Ile Leu Cys Glu Ser Ser Ile Ala Val Leu Val Val  
35 40 45

Ser Gly Ser Gly Lys Leu Tyr Lys Ser Ala Ser Gly Asp Asn Met Ser  
50 55 60

Lys Ile Ile Asp Arg Tyr Glu Ile His His Ala Asp Glu Leu Glu Ala  
65 70 75 80

Leu Asp Leu Ala Glu Lys Thr Arg Asn Tyr Leu Pro Leu Lys Glu Leu  
85 90 95

Leu Glu Ile Val Gln Ser Lys Leu Glu Glu Ser Asn Val Asp Asn Ala  
100 105 110

Ser Val Asp Thr Leu Ile Ser Leu Glu Glu Gln Leu Glu Thr Ala Leu  
115 120 125

Ser Val Thr Arg Ala Arg Lys Thr Glu Leu Met Met Gly Glu Val Lys  
130 135 140

Ser Leu Gln Lys Thr Glu Asn Leu Leu Arg Glu Glu Asn Gln Thr Leu  
145 150 155 160

Ala Ser Gln Val Thr Lys Thr Ser Leu Glu Ala Asn Ser Ser Val Asp  
165 170 175

Thr Gln

<210> 7

<211> 863

<212> DNA

<213> Brassica rapa

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<222> (1)..(588)

<220>

<221> unsure

<222> (839)

<223> unsure

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Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Lys Asn Ser Ser  
1 5 10 15

aga caa gtc acc tcc tgc aaa cga cgc aac ggt ctc atc gag aaa gct 96  
Arg Gln Val Thr Ser Cys Lys Arg Arg Asn Gly Leu Ile Glu Lys Ala  
20 25 30

cgt cag ctt tct gtt ctc tgc gag gca tct gtt ggg ctt ctc gtt gtc 144

Arg Gln Leu Ser Val Leu Cys Glu Ala Ser Val Gly Leu Leu Val Val			
35	40	45	
tcc gcc tcc gac aaa ctc tac agc ttc tcc tcc ggg gat aga ctg gag			192
Ser Ala Ser Asp Lys Leu Tyr Ser Phe Ser Ser Gly Asp Arg Leu Glu			
50	55	60	
aag atc ctt gat cga tat ggg aaa aaa cat qct gat gat ctc aat gcc			240
Lys Ile Leu Asp Arg Tyr Gly Lys Lys His Ala Asp Asp Leu Asn Ala			
65	70	75	80
ctg gat ctt cag tca aaa tct ctg aac tat agt tca cac cat gag cta			288
Leu Asp Leu Gln Ser Lys Ser Leu Asn Tyr Ser Ser His His Glu Leu			
85	90	95	
cta gaa ctt gtg gaa agc aag ctt gtg gaa tca att gat gat gta agc			336
Leu Glu Leu Val Glu Ser Lys Leu Val Glu Ser Ile Asp Asp Val Ser			
100	105	110	
gtg gat tcc ctc gtt gag cta gaa gat cac ctt gag act gcc ctc tct			384
Val Asp Ser Leu Val Glu Leu Glu Asp His Leu Glu Thr Ala Leu Ser			
115	120	125	
gta act aga gct cgg aag gca gaa cta atg tta aag ctt gtt gaa agt			432
Val Thr Arg Ala Arg Lys Ala Glu Leu Met Leu Lys Leu Val Glu Ser			
130	135	140	
ctc aaa gaa aag gag aat ctg ctg aaa gaa gag aac cag gtt ttg gct			480
Leu Lys Glu Lys Glu Asn Leu Leu Lys Glu Glu Asn Gln Val Leu Ala			
145	150	155	160
agt cag att gag gag aaa aat ctt gag gga gcc gaa gct gat aat ata			528
Ser Gln Ile Glu Glu Lys Asn Leu Glu Gly Ala Glu Ala Asp Asn Ile			
165	170	175	
gag atg tca tct gga caa atc tcc gac atc aat ctt cct gta act ctc			576
Glu Met Ser Ser Gly Gln Ile Ser Asp Ile Asn Leu Pro Val Thr Leu			
180	185	190	
ccg ctg ctt aat taaccacctt tactcgccgg ttaatcaaaa taagaaacat			628
Pro Leu Leu Asn			
195			
ataatctaaa gataacctat gtaggttta ctttcgca gttatccaac cacctttact			688
cggcggttaa tcgaaattaa aaacatataa ttaacaaata acctatgtca gtttaacccc			748
ctgataaaaga tgcacgttgt gcatcttagt tctctcttg gctgaggccc tgtgtataaa			808

ctatgcttag attaaataaa aatatatac natctaagac aaaaaaaaaa aaaaaa 863

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<211> 196

<212> PRT

<213> Brassica rapa

<400> 8

Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Lys Asn Ser Ser  
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20 25 30

Arg Gln Leu Ser Val Leu Cys Glu Ala Ser Val Gly Leu Leu Val Val  
35 40 45

Ser Ala Ser Asp Lys Leu Tyr Ser Phe Ser Ser Gly Asp Arg Leu Glu  
50 55 60

Lys Ile Leu Asp Arg Tyr Gly Lys Lys His Ala Asp Asp Leu Asn Ala  
65 70 75 80

Leu Asp Leu Gln Ser Lys Ser Leu Asn Tyr Ser Ser His His Glu Leu  
85 90 95

Leu Glu Leu Val Glu Ser Lys Leu Val Glu Ser Ile Asp Asp Val Ser  
100 105 110

Val Asp Ser Leu Val Glu Leu Glu Asp His Leu Glu Thr Ala Leu Ser  
115 120 125

Val Thr Arg Ala Arg Lys Ala Glu Leu Met Leu Lys Leu Val Glu Ser  
130 135 140

Leu Lys Glu Lys Glu Asn Leu Leu Lys Glu Glu Asn Gln Val Leu Ala  
145 150 155 160

Ser Gln Ile Glu Glu Lys Asn Leu Glu Gly Ala Glu Ala Asp Asn Ile  
165 170 175

Glu Met Ser Ser Gly Gln Ile Ser Asp Ile Asn Leu Pro Val Thr Leu  
180 185 190

Pro Leu Leu Asn

195

<210> 9  
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 <213> Brassica rapa

<220>  
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 <222> (1)..(588)

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 Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser  
 1 5 10 15

cga caa gtc acc ttc tcc aaa cga cgc agc ggt ctc atc gag aaa gct 96  
 Arg Gln Val Thr Phe Ser Lys Arg Arg Ser Gly Leu Ile Glu Lys Ala  
 20 25 30

cgt cag ctt tct gtt ctc tgc gag gca tct gtt ggg ctt ctc gtt gtc 144  
 Arg Gln Leu Ser Val Leu Cys Glu Ala Ser Val Gly Leu Leu Val Val  
 35 40 45

tcc gcc tcc gac aaa ctc tac agc ttc tcc tcc ggg gat aga ctg gag 192  
 Ser Ala Ser Asp Lys Leu Tyr Ser Ser Gly Asp Arg Leu Glu  
 50 55 60

aag atc ctt gat cga tat ggg aaa aaa cat gct gat gat ctc aat gcc 240  
 Lys Ile Leu Asp Arg Tyr Gly Lys Lys His Ala Asp Asp Leu Asn Ala  
 65 70 75 80

ctg gat ctt cag tca aaa tct ctg aac tat agt tca cac cat gag cta 288  
 Leu Asp Leu Gln Ser Lys Ser Leu Asn Tyr Ser Ser His His Glu Leu  
 85 90 95

cta gaa ctt gtg gaa agc aag ctt gtg gaa tca att gat gat gta agc 336  
 Leu Glu Leu Val Glu Ser Lys Leu Val Glu Ser Ile Asp Asp Val Ser  
 100 105 110

gtg gat tcc ctc gtt gag cta gaa gat cac ctt gag act gcc ctc tct 384  
 Val Asp Ser Leu Val Glu Leu Glu Asp His Leu Glu Thr Ala Leu Ser  
 115 120 125

gta act aga gct cgg aag gca gaa cta atg tta aag ctt gtt gaa agt 432  
 Val Thr Arg Ala Arg Lys Ala Glu Leu Met Leu Lys Leu Val Glu Ser  
 130 135 140

ctc aaa gaa aag gag aat ctg ctg aaa gaa gag aac cag gtt ttg gct		480
Leu Lys Glu Lys Glu Asn Leu Leu Lys Glu Glu Asn Gln Val Leu Ala		
145	150	155
		160
agt cag att gag aag aaa aat ctt gag gga gcc gaa gct gat aat ata		528
Ser Gln Ile Glu Lys Lys Asn Leu Glu Gly Ala Glu Ala Asp Asn Ile		
165		170
		175
gag atg tca tct gga caa atc tcc gac atc aat ctt cct gta act ctc		576
Glu Met Ser Ser Gly Gln Ile Ser Asp Ile Asn Leu Pro Val Thr Leu		
180	185	190
ccg ctg ctt aat taaccacctt tactcgccgg ttaatcaaaa taagaaacat		628
Pro Leu Leu Asn		
195		
ataatctaaa gataacctat gtaggtttta cttttcgccag cttatattaac cacctttact		688
cggcggttaa tcgaaattaa aaacatataa ttaacaaata acctatgtca gtttaacccc		748
ctgataaaga tgcacgttgt acatcttagt tctctctctg gctgagggc tgtgtaataa		808
ctatgcttag attaaataaaa aatatataatc tatttaagac aaaaaaaaaa aaaaaaaaaa		867
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<212> PRT		
<213> Brassica rapa		
<400> 10		
Met Gly Arg Lys Lys Leu Glu Ile Lys Arg Ile Glu Asn Lys Ser Ser		
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		15
Arg Gln Val Thr Phe Ser Lys Arg Arg Ser Gly Leu Ile Glu Lys Ala		
20	25	30
Arg Gln Leu Ser Val Leu Cys Glu Ala Ser Val Gly Leu Leu Val Val		
35	40	45
Ser Ala Ser Asp Lys Leu Tyr Ser Phe Ser Ser Gly Asp Arg Leu Glu		
50	55	60
Lys Ile Leu Asp Arg Tyr Gly Lys Lys His Ala Asp Asp Leu Asn Ala		
65	70	75
		80
Leu Asp Leu Gln Ser Lys Ser Leu Asn Tyr Ser Ser His His Glu Leu		

85

90

95

Leu Glu Leu Val Glu Ser Lys Leu Val Glu Ser Ile Asp Asp Val Ser  
100 105 110

Val Asp Ser Leu Val Glu Leu Glu Asp His Leu Glu Thr Ala Leu Ser  
115 120 125

Val Thr Arg Ala Arg Lys Ala Glu Leu Met Leu Lys Leu Val Glu Ser  
130 135 140

Leu Lys Glu Lys Glu Asn Leu Leu Lys Glu Glu Asn Gln Val Leu Ala  
145 150 155 160

Ser Gln Ile Glu Lys Lys Asn Leu Glu Gly Ala Glu Ala Asp Asn Ile  
165 170 175

Glu Met Ser Ser Gly Gln Ile Ser Asp Ile Asn Leu Pro Val Thr Leu  
180 185 190

Pro Leu Leu Asn  
195